

# The Metric System

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## Metric System

- ▶ An international system of units for measurement. (SI)
- ▶ Length or distance in METERS
- ▶ Volume in LITERS
- ▶ Mass in GRAMS
- ▶ Easy to convert because everything is a base of 10.

kilo	hecto	deca	<b>Basic Unit</b>	deci	centi	milli
(k)	(h)	(da)	gram (g)	(d)	(c)	(m)
1000	100	10	liter (L)	.1	.01	.001
10 <sup>3</sup>	10 <sup>2</sup>	10 <sup>1</sup>	meter (m)	10 <sup>-1</sup>	10 <sup>-2</sup>	10 <sup>-3</sup>

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Prefix	Unit abbreviation	Exponential factor	Meaning	Example
tera	T	10 <sup>12</sup>	1 000 000 000 000	1 terameter (Tm) = 1 × 10 <sup>12</sup> m
giga	G	10 <sup>9</sup>	1 000 000 000	1 gigameter (Gm) = 1 × 10 <sup>9</sup> m
mega	M	10 <sup>6</sup>	1 000 000	1 megameter (Mm) = 1 × 10 <sup>6</sup> m
kilo	k	10 <sup>3</sup>	1000	1 kilometer (km) = 1000 m
hecto	h	10 <sup>2</sup>	100	1 hectometer (hm) = 100 m
deka	da	10 <sup>1</sup>	10	1 dekameter (dam) = 10 m
		10 <sup>0</sup>	1	1 meter (m)
deci	d	10 <sup>-1</sup>	1/10	1 decimeter (dm) = 0.1 m
centi	c	10 <sup>-2</sup>	1/100	1 centimeter (cm) = 0.01 m
milli	m	10 <sup>-3</sup>	1/1000	1 millimeter (mm) = 0.001 m
micro	μ	10 <sup>-6</sup>	1/1 000 000	1 micrometer (μm) = 1 × 10 <sup>-6</sup> m
nano	n	10 <sup>-9</sup>	1/1 000 000 000	1 nanometer (nm) = 1 × 10 <sup>-9</sup> m
pico	p	10 <sup>-12</sup>	1/1 000 000 000 000	1 picometer (pm) = 1 × 10 <sup>-12</sup> m
femto	f	10 <sup>-15</sup>	1/1 000 000 000 000 000	1 femtometer (fm) = 1 × 10 <sup>-15</sup> m
atto	a	10 <sup>-18</sup>	1/1 000 000 000 000 000 000	1 attometer (am) = 1 × 10 <sup>-18</sup> m

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- 375 mm = \_\_\_\_\_ cm
- 4,310 mg = \_\_\_\_\_ g
- 1.097 km = \_\_\_\_\_ m
- 6.46 cm = \_\_\_\_\_ mm

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- 2.57 dg = \_\_\_\_\_ hg
- 1.67 cg = \_\_\_\_\_ g
- 350 mL = \_\_\_\_\_ dL
- 0.175 m = \_\_\_\_\_ cm

Just remember....

▶ **King Henry Died By Drinking Chocolate Milk**

K H D B D C M

Answer these questions by telling >, <, OR =

- 1.4m \_\_\_\_\_ 14 cm
- 85.9 mg \_\_\_\_\_ 0.859 g

Just remember....

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K H D B D C M

Answer these questions by telling >, <, or =

11) 1.48 km \_\_\_\_\_ 1,480m

12) 0.004 m \_\_\_\_\_ 40 mm

Just remember....

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Answer these questions by telling >, <, or =

13) 0.56 hg \_\_\_\_\_ 56 dg

14) 7.4 dag \_\_\_\_\_ 7,400 dg

Just remember....

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K H D B D C M

Answer these questions by telling >, <, or =

15) 0.000006km \_\_\_\_\_ 6mm

16) 8,570 cL \_\_\_\_\_ 8.57 hL